

IN THE UNITED STATES DISTRICT
COURT FOR THE EASTERN DISTRICT
OF MISSOURI EASTERN DIVISION

TAMIA BANKS, on behalf of herself and all
others similarly situated,

Plaintiff,

v.

COTTER CORPORATION, *ET AL.*,

Defendants.

No. 4:18-CV-00624-JAR

DECLARATION OF RICHARD B. STEWART

I, RICHARD B. STEWART, 40 Washington Square South, 411F, New York, NY 10012, submit this Declaration on behalf of Plaintiffs in the above titled matter.

Expert Qualifications

I am presently University Professor and John Edward Sexton Professor of Law, New York University School of Law, and Director, Frank J. Guarini Center on Environmental, Energy and Land Use Law. As I explain more fully below, I have over forty years' experience researching and teaching U.S. environmental and administrative law at various institutions, including Harvard and NYU. An important specialty of mine is nuclear waste regulation and law. I co-authored an authoritative book on US nuclear waste regulation and law; Richard B Stewart and Jane B Stewart, *FUEL CYCLE TO NOWHERE? U.S. LAW AND POLICY ON NUCLEAR WASTE* (Vanderbilt University Press, 2011). As shown on my attached curriculum vitae, I've also authored a number of substantial articles on nuclear waste regulation and law. I also have significant experience as a practitioner in these fields, including as Assistant Attorney General for Environment and Natural Resources of the United States Department of Justice ("DOJ"), an office which I held in the period 1989-1991, and as counsel.

I have taught U.S. environmental and administrative law for over 40 years, and have published 18 books and monographs and over 100 articles, essays and book chapters in these fields. I am a graduate of Yale University (summa cum laude), the University of Oxford (University College, Rhodes Scholar, First Class Honors), and Harvard Law School (magna cum laude; Editor, Harvard Law Review). Following a clerkship with Mr.

Justice Potter Stewart, Supreme Court of the United States, I practiced law for several years with the Washington, D.C. law firm of Covington and Burling LLP. I joined the Harvard Law School faculty in 1971 and taught there for 17 years, becoming Byrne Professor of Administrative Law in 1984. I was also a faculty member of the John F. Kennedy School of Government at Harvard in the period 1984- 1989. I joined the NYU Law School faculty in 1992 as Emily Kempin Professor of Law. I hold honorary degrees from the University of Rome La Sapienza and the Erasmus University, Rotterdam. I have also been a visiting professor of law at numerous universities, including Yale University, the University of California-Berkeley, and the European University Institute Florence, and a visiting scholar at the faculty of laws, University College London and Sciences Po Law School, Paris.

In 1989, on appointment by President George H. W. Bush, I became Assistant Attorney General for Environment and Natural Resources of DOJ, leading a staff of 400 lawyers representing the federal government in a wide variety of environmental and natural resources litigation. Among other matters, I was responsible for prosecuting Exxon for the *Exxon Valdez* spill and dealt with other major cases involving spills of oil and hazardous substances.

Following my government service I joined the NYU Law School faculty. From 1993 to 2002 I was of counsel for the law firm of Sidley Austin LLP, specializing in environmental law, in particular hazardous substances liability. Since that time, as well as during my tenure at Harvard, I have been involved in a number of environmental and administrative law cases, including cases involving pollution and hazardous substances liability. I have served as a director of the Health Effects Institute and Chairman and Trustee of the Environmental Defense Fund, two leading U.S. nonprofit environmental organizations. My full curriculum vita is attached.

Factual Background

This report is based on the following factual assumptions and documents, provided to me by counsel:

In 1942, as a part of the Manhattan Project and pursuant to contracts with the federal government, Mallinckrodt processed uranium ore from the Belgian Congo at a facility in downtown St. Louis, Missouri, in order to extract uranium for use in nuclear weapons. The residues from the ore processing, known as mill tailings, contain radioactive decay products as well as heavy metals. Mallinckrodt ceased processing operations in 1957. Subsequently, the government sold the mill tailings from these operations. These tailings from Congolese ore, along with Colorado Raffinate waste and other contaminated materials, were stored at a site near the St. Louis airport ("SLAPS"). In the 1960s, some of the mill tailings at SLAPS were moved to a storage site on Latty Avenue in Hazelwood, Missouri for processing by Cotter.

In 1969, Cotter Corp. purchased from Commercial Discount Corporation mill tailings that had been stored at both sites as "U₃O₈ bearing residues." Cotter at that time issued a full indemnification to Commercial Discount Corporation. On December 3, 1969 the Atomic Energy

Commission (“AEC”) issued a source material license to Cotter for work at the Latty Avenue. On or about November 13, 1974, the AEC terminated the license. There is no evidence that Cotter executed a financial responsibility and indemnity agreement with the government to ensure compensation for third parties that might be injured by its activities regarding the mill tailings. Before 1974, Cotter ceased drying the materials subject to their source license and had the mill tailings transported to the Bridgeton Landfill, leaving residual mill tailings at Latty Avenue, effectively disposing of them without the necessary disposal license. No license was issued by AEC to Cotter for the disposal of the tailings. I have been informed that the levels of radioactive releases from the restricted area of the Latty Avenue site have exceeded applicable federal health and environmental regulatory standards.

Plaintiffs in the instant case own property within the 100 year flood plain of Coldwater Creek in North St. Louis County, Missouri. They seek to maintain in Missouri state courts claims for damages and other relief for contamination of their property under Missouri law of nuisance and trespass.

Issues Addressed in this Declaration

In this Declaration, I provide my expert opinion on two basic issues:

First, do the plaintiffs’ claims fall under the exclusive federal jurisdiction of the Price Anderson Act and accordingly must be maintained in federal rather than state court?

Second, are plaintiffs’ state law claims for nuisance and trespass preempted by the Price Anderson Act?

I. Plaintiffs’ Claims Do Not Fall Within the Exclusive Jurisdiction of the Price Anderson Act and Accordingly May be Maintained in Missouri State Courts under Missouri State Law

The Price Anderson Act provides for exclusive federal court jurisdiction over “public liability” claims arising out of a “nuclear incident,” which includes “extraordinary nuclear occurrences.” The issue in this case is whether injuries caused by releases of radioactivity from the mill tailings disposed of at the SLAPS sites and/or Latty Avenue sites represent such an “incident” or “occurrence.” This question of statutory construction must be answered on the basis not only of the statutory language, but the role of Price Anderson Act public liability claims within the overall structure and purpose of the Act. Furthermore, we deal here with the question of whether a federal statute displaces and preempts state jurisdiction over liability claims based on state tort law. Based on federalism considerations, the Supreme Court has held that in such cases a federal statute should not be interpreted as preemptive of traditional state common law remedies unless the intent of Congress to preempt them is clear. *Cipollone v. Liggett Group, Inc.*, 505 U.S. 504 (1992). Applying these considerations and principles to the circumstances here, it is manifest that plaintiffs’ claims are not subject to the exclusive federal jurisdiction of the Price Anderson Act, and are not preempted by the Act; accordingly such claims may be maintained in the Missouri state courts.

The basic purpose of the Price Anderson Act was to redress the disincentives posed by the threat of far-reaching liability to private firms' participation in the development of nuclear power and other nuclear-related activities involving certain types of nuclear materials, specifically special nuclear material, source material, and byproduct material. As set forth in 42 U.S.C. § 2210, the means by which Congress implemented this objective was to provide an a federally administered liability and insurance scheme to pay "public liability" claims (discussed below) in order to ensure compensation for injuries suffered by third parties caused by participating nuclear licensees or contractors, while at the same time providing those licensees or contractors with protection against the risk of massive, uninsurable liabilities. Authority to administer the system was originally given to the Atomic Energy Commission ("AEC"); its regulatory authorities were transferred in 1975 to the Nuclear Regulatory Commission ("NRC") and its operational authorities to the Department of Energy. These government authorities are authorized to require nuclear licensees or contractors to establish a basic level of insurance or other financial responsibility to cover their nuclear-related liabilities; in turn, such licensees or contractors receive indemnity agreements under which the government will cover any excess liabilities. The liability of participating licensees or contractors is capped. Liabilities in excess of the cap are covered by an insurance pool established and overseen by AEC/NRC and financed by premiums assessed against nuclear facility operators. Also, all licensees receiving indemnity agreements are required to pay a fee to the government. This liability cap and insurance umbrella system, including government indemnity agreements, was designed to cushion liability risks for participating licensees and contractors conducting their nuclear related activities in accordance with federal licensing and regulatory requirements.

A. Plaintiffs' Claims Do Not Fall Within the Jurisdiction of the Price Anderson Act Because the Mill Tailings that Defendants Disposed Are Not Subject to the Atomic Energy Act and the Price Anderson Act

The Price Anderson Act's public liability provisions cover "nuclear incident" for harms "arising out of or resulting from the radioactive, toxic, explosive or other hazardous properties of source, special nuclear, or byproduct material." 42 U.S.C. § 2014(q). The terms "special nuclear material," "source material," and "byproduct material." are defined in the Atomic Energy Act ("AEA"). For the reasons explained below, the mill tailings disposed of by Defendants did not fall within any of these three categories of materials, and therefore plaintiffs' claims for injuries caused by radioactive releases from the mill tailings do not fall within the jurisdiction of the Price Anderson Act.

The disposed mill tailings are not "special nuclear material," which the AEA defines (1) plutonium, uranium enriched in the isotope 233 or in the isotope 235 . . . or (2) any material artificially enriched by any of the foregoing . . . but does not include source material." 42 U.S. C. § 2014(aa).

The disposed mill tailings are not "source material," which the AEA defines as "(1) uranium, thorium, or any other material which is determined by the Commission . . . to be source material; or (2) ores containing one or more of the foregoing materials, in such concentration as the Commission may by regulation determine from time to time." 42 U.S. C. § 2014(z).

Accordingly, the mill tailings that Cotter disposed of are not “source material.” Nor are they, as explained above, “special nuclear material.” Finally, the disposed mill tailings are not “byproduct material.” When Cotter disposed of the mill tailings, prior to the 1978 amendments discussed below, the Atomic Energy Act, Section 11(e), defined “byproduct material” as “any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material.” 68 Stat. at 922-924 (codified as amended at 42 U.S.C. § 2014). This definition did not include mill tailings from the processing of uranium ores, which does not involve radiation exposures. Accordingly, AEC and subsequently NRC determined that mill tailings were not subject to their AEA regulatory authority. See *Kerr-McGee Chem. Corp. v. U.S. Nuclear Regulatory Commission*, 903 F.2d 1, 2-3 (D.C. Cir. 1990) (“The AEA made no provision for regulating waste materials generated during the extraction or concentrating of source material.”)

Subsequently, Congress in 1978 enacted the Uranium Mill Tailings Radiation Control Act (UMTRCA), establishing a federal program for regulation and remediation of mill tailings. In doing so, it amended the AEA definition of “byproduct material” to include mill tailings, modifying Section 11(e) to add as subsection (2): “the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content.” 42 U.S.C. § 2014(e)(2). NRC subsequently considered whether this expanded AEA definition of byproduct material applied retroactively to include mill tailings previously generated by facilities that had ceased operations prior to UMTRCA’s enactment. In an exceedingly thorough 25 page determination, the Director of the NRC Office of Nuclear Materials Safety and Safeguards determined, on behalf of the Commission, that such tailings are not “byproduct material” covered by the 1978 amendment to AEA and accordingly are not subject to regulation under UMTRCA. *In the Matter of Envirocare of Utah and Snake River Alliance*, 56 NRC 53 (2002). Under the controlling Supreme Court precedent established in *Skidmore v. Swift & Co.*, 323 U.S. 134 (1944) this thorough, cogently reasoned determination, reflecting the expertise and informed judgment of NRC, must receive substantial judicial deference. Further, the Director’s determination accords with the general presumption against interpreting statutes as having retroactive application. *Landgraf v. USI Film Prods.*, 511 U.S. 244 (1994). Accordingly, the mill tailings generated by Mallinckrodt’s processing operations, that ceased in 1957, and which were disposed of by Cotter, were not and are not “byproduct material” subject to the AEA and therefore cannot provide the basis for a public liability action under the Price Anderson Act.

B. Plaintiffs’ Claims Do Not Fall Within the Jurisdiction of the Price Anderson Act Because Defendants’ Disposal of Mill Tailings Was Not Undertaken Pursuant to an Appropriate Federal License or Indemnity Agreement

As previously explained, the Price Anderson Act’s scheme for liability, insurance, and compensation for certain nuclear -related injuries, including capping operator liability, applies only to conduct undertaken pursuant to an appropriate federal license and/or government indemnity agreement. Defendants’ disposal of mill tailings was not conducted pursuant to any such license and there is no evidence that it was undertaken pursuant to any such indemnity agreement. Accordingly, the radioactive releases from the St. Louis Airport Site and the Latty Avenue Site do not represent a “nuclear incident” covered by the public liability provisions of

the Price Anderson Act, and plaintiffs' claims against defendants are not subject to the Act's federal jurisdiction.

The liability provisions of the Price Anderson Act apply only when the conduct causing injury was carried out in accordance with an appropriate government license and/or indemnity agreement. Nothing in the 1988 Amendments changes this statutory scheme.

The Price Anderson Act provides for a scheme of "public liability" and compensation for injuries arising out of activities involving specified nuclear materials (as discussed above). More specifically, this scheme applies only to a "nuclear incident" "including an extraordinary nuclear occurrence."

"Public liability" is defined in 42 U.S.C. § 2014(w) as:

any legal liability arising out of or resulting from a nuclear incident ... except ...
(iii) whenever used in subsections (a), (c), and (k) of section 2210 of this title, claims for loss of, or damages to, or loss of use of property which is located at the site of and used in connection with the *licensed activity* where the nuclear incident occurs. 'Public liability' also includes damage to property of *persons indemnified*: Provided, That such property is covered under the terms of the financial protection required, except property which is located at the site of and used in connection with the activity where the nuclear incident occurs. (Emphasis added)

"Nuclear incident" is defined in 42 U.S.C. § 2014(q) as:

Any occurrence, including an extraordinary nuclear occurrence, within the United States causing, within or outside the United States, bodily injury, sickness, disease, or death, or loss of or damage to property, or loss of use of property, arising out of or resulting from the radioactive, toxic, explosive or other hazardous properties of source, special nuclear, or byproduct material.... And provided further, That as the term is used in section 2210(c) of this title, it shall include any such occurrence outside both the United States and any other nation if such occurrence arises out of or results from the radioactive, toxic, explosive, or other hazardous properties of source, special nuclear, or byproduct material licensed pursuant to subchapters V, VI, VII, and IX of this division, which is used in connection with the operation of a licensed stationary production or utilization facility or which moves outside the territorial limits of the United States in transit from one person licensed by the Nuclear Regulatory Commission to another person licensed by the Nuclear Regulatory Commission. (Emphasis added)

"Extraordinary nuclear occurrence" is defined in 42 U.S.C.A. § 2014(j) as:

any event causing a discharge or dispersal of *source, special nuclear, or byproduct material* from its intended place of confinement in amounts offsite, or causing radiation levels offsite, which the Nuclear Regulatory Commission or the Secretary of Energy, as appropriate, determines to be substantial, and which the Nuclear Regulatory Commission or the Secretary of Energy, as appropriate, determines has resulted or will probably result in substantial damages to persons offsite or property offsite..... The Nuclear Regulatory Commission or the Secretary of Energy, as appropriate, shall establish criteria in writing setting forth the basis upon which such determination shall be made. As used in this subsection, "offsite" means away from "the location" or "the contract location" as *defined in the applicable Nuclear Regulatory Commission or the Secretary of Energy, as appropriate, indemnity agreement*, entered into pursuant to section 2210 of this title. (Emphasis added)

"Person indemnified" is defined in 42 U.S.C.A. § 2014(t) as:

The term “person indemnified” means (1) with respect to a nuclear incident occurring within the United States or outside the United States as the term is used in section 2210(c) of this title, ... the *person with whom an indemnity agreement is executed or who is required to maintain financial protection*, and any other person who may be liable for public liability (Emphasis added)

While hardly a model of legislative drafting, these provisions make sufficiently clear that the Act’s public liability provisions are limited to injuries resulting from activities carried on by a party in accordance with a government regulatory license and/or an agreement for government indemnification. This limitation is the logical corollary of the Price Anderson Act scheme of providing a liability cap and insurance umbrella for activities that are subject to government licensing and regulation and/or have a government indemnity agreement. The Act, as amended in 1988 excludes punitive damages in public liability claims; such exclusion is logical in a government supervised insurance system that provides for assured compensation of those suffering injury, for capping nuclear operators’ liability, and for government regulatory controls that would provide safeguards against hazard.

Defendants’ operations at the Latty Avenue and SLAPS sites do not appear to be the subject of any indemnity agreement with the United States. In fact, the transaction documents show that Cotter indemnified its predecessor in title. Furthermore, the disposal of mill tailings was not undertaken pursuant to an appropriate federal license or government indemnity agreement, and accordingly do not give rise to a “public liability” claim under the exclusive jurisdiction of the Price Anderson Act. The AEC license issued to Cotter, was for “uranium.” Cotter’s license application stated as the purpose of the license that Cotter “will process the material to recover uranium.” Apparently, it never did so; in any event, any efforts that it might have made to do so had ceased prior to the time it abandoned and disposed of the mill tailings at the Latty Avenue site.

There is no evidence that Defendants ever obtained a government indemnity agreement pursuant to the Price Anderson Act for its operations at any of the sites. Thus, Defendants have failed to show that plaintiffs’ claims fall within the federal jurisdiction of the Price Anderson Act.

II. The Price Anderson Act Does Not Preempt Plaintiffs’ State Law Trespass and Nuisance Claims

As shown above, plaintiffs state law trespass and nuisance claims do not fall within the exclusive jurisdiction of the Price Anderson Act. As shown in this section of my Declaration, these state law claims are not preempted by the Price Anderson Act. They may accordingly be maintained in the Missouri state courts.

In enacting the Price Anderson Act, Congress did not preclude maintenance of any and all state law claims for nuclear -related harms. As shown above, the Act provides jurisdiction only over those claims involving special nuclear, source, or byproduct material arising out of conduct by a defendant operating in accordance with an appropriate government license and/or indemnity agreement. It does not preempt state law claims that fall outside of its jurisdiction. The Act does not reflect congressional intent to occupy the entire field of all nuclear -related claims, nor would

maintenance in state court under state law of claims not covered by the Act conflict with the Act's scheme.

The well-reasoned opinion by Judge (now Justice) Gorsuch for the court in *Cook v. Rockwell Int'l Corp.*, 790 F.3d 1088, 1099 (10th Cir. 2015), *cert. dismissed sub nom. Dow Chem. Co. v. Cook*, 136 S. Ct. 2055 (2016), provides an exceedingly sound analysis of the issues and justification for these conclusions. As Judge Gorsuch shows, the Price Anderson Act does not extend to all nuclear - related activities and resulting injuries. Nor does it preempt the field, so as to preclude state law recovery for such injuries when they are not subject to compensation under the Act. Further, the congressional scheme in the Act can function perfectly well in tandem with state court decision of state law actions involving claims not covered by the Price Anderson Act system. Indeed, the availability of state law claims, which could include punitive damage awards, would strengthen the Price Anderson Act system by giving operators incentives to subject their activities to federal regulatory and financial responsibility/indemnity requirements.

As *Cook* points out, courts that have stated in unqualified terms that the Price Anderson Act and its exclusive federal jurisdiction encompasses all nuclear-related injury claims have failed to address the limitations in the Act's coverage. As shown above, the Act covers only claims arising out of a "nuclear incident" "including an extraordinary nuclear occurrence," involving specified nuclear-related materials in activities subject to federal regulation and/or indemnity agreements. Precluding state law claims that do not meet these limitations would leave injured parties in limbo, without any remedy.

Cook's refusal to preempt all state law claims was anticipated in *Bennett v. Mallinkrodt, Inc.*, 698 S.W.2d 854 (Mo. Ct. App. 1985), *cert denied*, 106 S. Ct. 2903 (1986), which held that action by plaintiffs who lived or worked near defendant's radiopharmaceutical plant was not preempted by the Price Anderson Act. The court found that the Act embodied an underlying principle of interfering with state law to the minimum extent necessary. *Id.* at 860-861. After the Supreme Court declined to review the decision, the radiopharmaceutical industry unsuccessfully sought congressional amendment of the Price Anderson Act to preempt state law claims.

As *Cook* properly emphasized, the federalism canon of statutory construction embraced by the Supreme Court dictates that the Price Anderson Act should not be interpreted to preempt state law claims that do not fall within its "public liability" scheme. Court must not interpret federal statutes to preempt traditional state tort law remedies unless the congressional intent to do so is clear. *Cipollone v. Liggett Group, Inc.*, 505 U.S. 504 (1992); *Riegel v. Medtronic, Inc.*, 552 U.S. 312, 334 (2008). No such intent can be found in the Price Anderson Act .

Furthermore, interpreting the Price Anderson Act to preempt state law claims that do not qualify as "public liability" claims under the Act would leave injured parties without any redress for the harms that they have suffered. Depriving such parties of any remedy at all would likely violate due process. Under the canon of constitutional avoidance enunciated by the Supreme Court, courts should construe federal statutes so as to avoid presenting such serious constitutional issues. *United States v. Witkovich*, 353 U.S. 194 (1957); *NLRB v. Catholic Bishop of Chicago*, 440 U.S. 490 (1979). Accordingly, courts should not interpret the Price Anderson Act to preempt state law claims for injuries for which PAA does not itself provide a remedy.

I declare under penalty of perjury that the foregoing is true and correct.

A handwritten signature in blue ink, appearing to read "Richard B. Stewart". The signature is written in a cursive, flowing style.

Richard B. Stewart Dated July 7 2018

RICHARD B. STEWART

- CURRICULUM VITAE -

Employment/Appointments:

University Professor
John E. Sexton Professor of Law
Director, Center on Environmental, Energy and Land Use Law
New York University

Courses Taught:

Environmental Law, Administrative Law, International Environmental Law and
Policy, Law and Globalization,

Current Research Interests
and Activities:

Co-founder of major research projects on Global Administrative Law and
MegaReg: Regulatory and Justice Dimensions of Economic Globalization,
Institute for International Law, New York University School of Law, in
collaboration with various universities around the world.,

Currently researching and preparing for publication books/articles on private and
hybrid global regulation, “megaregional” trade/regulatory regimes, climate
regulation and finance, climate, self-regulation in global supply chains, nuclear
waste law and policy, science, law, and governance in the Arctic, global
administrative law, environmental protection and market economics and
incentives.

Previous Employment/Appointments:

2012	Visiting Professor, Yale Law School
2009-10	Fellow, The Straus Institute for the Advanced Study of Law and Justice
2005-6, 1999	Visiting Professor of Law, University of Rome “La Sapienza”

2000	Visiting Professor of Law, University of Bologna
1993-2002	Of Counsel, Sidley and Austin, specializing in environmental regulation and liabilities
1993:	Jean Monnet Visiting Professor European University Institute, Florence
1991-92:	Visiting Professor of Law Georgetown University School of Law
1989-91:	Assistant Attorney General for Environment and Natural Resources U.S. Department of Justice
1984-89:	Byrne Professor of Administrative Law Harvard Law School Member of the Faculty J. F. Kennedy School of Government Harvard University
1986-87:	Visiting Professor of Law University of Chicago Law School
1984:	Visiting Fellow, European University Institute Florence, Italy
1980:	Visiting Scholar U.S. Environmental Protection Agency
1979-80:	Visiting Professor of Law University of California, Berkeley
1975-84:	Professor of Law Harvard Law School
1971-75:	Assistant Professor of Law Harvard Law School
1973:	Special Counsel, Senate Select Committee on Presidential Campaign Activities
1967-71:	Attorney, Covington Burling

888 Sixteenth Street, N.W.
Washington, DC 20006
Specializing in antitrust, regulatory, and general appellate litigation matters

1966-67: Law Clerk to Mr. Justice Potter Stewart
Supreme Court of the United States

Other Current Activities, Memberships, Honors:

Advisory Trustee and Member, Litigation Review Committee, Environmental Defense Fund

Management Committee and Researcher, Consortium for Risk-Based Evaluation with Stakeholder Participation (CRESP), university-based nuclear waste cleanup research and policy institution serving as independent advisor to U.S. Department of Energy

Editorial Boards: Review of European Community and International Environmental Law; Oxford Journal of Environmental Law; International Journal of BioSciences and Technology (hon.)

Member, American Law Institute, Phi Beta Kappa; U.S. College of Environmental Lawyers.

American Bar Association 2009 Annual Award for Environmental Stewardship

Fellow, International Association of Administrative law

Fellow, American College of Environmental Lawyers

Fellow, American Academy of Arts and Sciences;

Edmond J. Randolph Award, U.S. Department of Justice;

2009 American Bar Association Annual Award for Environmental Stewardship

Rhodes Scholar

Dr. (*honors causa*), Erasmus University, Rotterdam (1993); Awarded for contributions to environmental law and protection through scholarship on economic incentives for environmental protection and service as US Assistant Attorney General in prosecuting EXXON for the Exxon Valdez oil spill.

Dr. (*honors causa*), University of Rome “La Sapienza” (2005). Awarded for contributions to environmental and administrative law including through scholarship on economic incentives for environmental protection.

Past Activities:

Director, Health Effects Institute, 1997-2007

Principal Investigator, Project on International Trade and Regulatory Conflicts over Genetically Modified Foods and Crops, with special emphasis on position of developing countries. Funded by \$435,000 grant from Rockefeller Foundation

Co-Principal Investigator, Project on Capacity-Building for Environmental Legislation in the People’s Republic of China, training staff of Environmental Protection Committee of National People’s Congress and relevant ministries and assisting them in revising and strengthening China’s environmental laws. Grants totally \$1.4 million from Asian Development Bank.

Consultant to United Nations Commission on Trade and Developments (UNCTAD) on legal and institutional issues presented in development of international greenhouse gas emissions trading systems.

Member UNEP Group of Experts on Liability and Compensation for Environmental Damage from Military Activities, 1995-1996

Chief Reporter, American Law Institute
Project on Product and Process Injuries, 1985-1989

Member, Board of Trustees, Environmental Defense Fund, 1976-1989
(Chairman, 1980-83). Advisory t Trustee, 1993-present.

U.S. Congress Office of Technology Assessment,
Advisory Committee on New Clean Air Act Issues

Academic Advisory Board, Foundation for Research on Economics and the Environment

Consultant, Administrative Conference of the United States,
U.S. Environmental Protection Agency;
U.S. Federal Trade Commission;
President's Commission on Three Mile Island;
U.S. Congress Office of Technology Assessment;

National Research Council Committee on Environmental Decisionmaking and
Chairman, Panel on Legal Considerations

Education:

- 1963-66: Harvard Law School
LL.B. magna cum laude
Editor, Harvard Law Review
- 1961-63: Rhodes Scholar, Oxford University.
MA with First Class Honors in Philosophy,
Politics and Economics
- 1957-61: Yale University, B.A. summa cum laude
History, the Arts, Letters. Junior
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SELECTED PUBLICATIONS

Books and Monographs:

Private and Hybrid Global Regulatory Governance (with Benedict Kingsbury) (forthcoming, Oxford University Press)

Megaregulation Contested: Global Economic Ordering After TPP (co-editor and author) (forthcoming, Oxford University Press, 2018)

Carbon Capture and Storage: Emerging Legal and Regulatory Issue (2d ed. 2018) (co-editor)

Symposium on International Regulatory Cooperation and Conflict, 48 L.& Contemp Probs –(2016)(with R. Bull. N. Mahboubi & J. Wiener)

Special Issue on Building Blocks for Addressing Climate Change, Climactic Change (2016)(with M. Oppenheimer and B. Rudyk)

Hacia El Derecho Administrativo Global: Fundamentos, Principios y Ámbito de Aplicación (2015) (with Benedict Kingsbury)

Fuel Cycle to Nowhere? U.S. Law and Policy on Nuclear Waste (2011) (with J. Stewart)

Breaking the Logjam : Environmental Protection that Will Work (2010)(with D. Schoenbrod and K. Wyman)(paper ed. 2012)

Climate Finance: Regulatory and Funding Strategies for Climate Change and Sustainable Development (with B. Kingsbury and B. Rudyk) (editor and principal author)(2009)

Administrative Law and Regulatory Policy (7th ed.)(2008)(with S. Breyer, C. Sunstein & A. Vermuele)

Symposium on Global Administrative Law (37:4 NYU Journal of International Law and Politics, 2005) (ed. with B. Kingsbury)

Symposium on The Emergence of Global Administrative Law (68:3-4 Law and Contemporary Problems, 2005) (ed. with B. Kingsbury, N. Krisch, and J. Weiner)

Beyond Kyoto: Reconstructing Global Climate Policy (2003) (with J. Wiener)

The Reformation of American Administrative Law (in Chinese) (2002)

The Clean Development Mechanism: Building International Private-Public Partnership (United Nations Conference on Trade and Development) (2000) (lead author)

Environmental Law, The Economy, and Sustainable Development: Europe, the United States, and the Global Regime (Cambridge University Press, 2000) (Editor, with R. Revesz & P. Sands)

Legal Issues Presented By a Pilot International Greenhouse Gas Trading System, United Nations Conference on Trade and Development (1996) (with P. Sands and J. Wiener)

Natural Resource Damages: A Legal, Economic and Policy Analysis. Washington, D.C. The National Legal Center for the Public Interest (1995)

Analyzing Superfund: Economics, Science, and Law (Editor, with R. Revesz) (Resources for the Future 1995)

Markets Versus Environment? (The Robert Schuman Centre, European University Institute) (1995)

Environmental Law and Policy, Little, Brown & Co. (1994) (with P. Menell)

Integration Through Law: Environmental Protection Policy Law (1985) (with E. Rehbinder) De Guyter (paperback edition, 1987)

Environmental Law & Policy (2d ed. 1978) (with J. Krier)

Articles, Book Chapters, Essays and Reviews:

Private And Hybrid Governance in a State-Centered World, in Private and Hybrid Global Regulatory Governance (with Benedict Kingsbury) (forthcoming, Oxford University Press)

Megaregulatory Administrative Law: An Instrument of Political Control, in Megaregulation Contested: Global Economic Ordering After TPP (forthcoming, Oxford University Press, 2018) (co-author)

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TPP as Megaregulation, in Megaregulation Contested: Global Economic Ordering After TPP (forthcoming, Oxford University Press, 2018) (co-author)

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State Regulatory Capacity and Administrative Law and Governance under Globalization, in N. Parrillo and J. Mashaw, eds., in N. Parrillo & J. Mashaw, eds Administrative Law from the Inside Out (2017)

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